

REMARKS

Claims 1 – 18 were previously pending in this application. Claims 3, 7, 8, 11 and 16 have been cancelled without prejudice or disclaimer. Claims 1, 6, 9 and 14 have been amended. As a result claims 1, 2, 4 – 6, 9, 10, 12 – 15 and 17 – 18 are pending for examination with claims 1, 6, 9 and 14 being independent claims. No new matter has been added.

In the Drawings

Replacement drawing sheets have been submitted herewith addressing each of the deficiencies noted by the Examiner, overcoming the Examiner's objection. Withdrawal of the objection is therefore respectfully requested.

Objection to the Claims

Claim 1 has been objected to for a typographical error in line 6, thereof. The claim has been amended to replace "provided" with "provides," overcoming this objection. Withdrawal of the objection is therefore respectfully requested.

Rejection under 35 U.S.C. §112

Claims 3, 7 and 9 – 18 have been rejected under 35 U.S.C. §112, second paragraph, as being indefinite. Claims 3, 7, 11 and 16 have been cancelled, rendering this rejection moot as to those claims. Claims 9 and 14 have been amended to overcome this rejection.

Claims 9 and 14 now each recite a source for the fluid flow rate set point signal and further recite that the set point signal defines a fluid flow rate set point. Antecedent basis is now found for all elements of each of claims 9, 10, 12 – 15 and 17 – 18.

Accordingly, withdrawal of the rejection of claims 9, 10, 12 – 15 and 17 – 18 under 35 U.S.C. §112, second paragraph, is respectfully requested.

Rejections Under 35 U.S.C. §102

Claims 1 – 4, 6, 9 – 12 and 14 – 17 have been rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,727,933 to Laskaris et al. (hereinafter "*Laskaris*"). Claims 1, 6, 9 and 14 have been amended overcoming this rejection.

Each of the independent claims, 1, 6, 9 and 14 rejected hereunder, now defines a method or apparatus employing a series of control pulses, each pulse of which produces an approximately constant output volume. In the apparatus claims, a pulse-driven metering pump produces the approximately constant output volume for each pulse. In contrast, *Laskaris* discloses a gear pump which is driven, for example, by a direct drive electric motor or a hydraulic drive. *Laskaris* does not disclose a pulse-driven metering pump. Therefore, *Laskaris* does not disclose all of the elements of the claims as amended.

Accordingly, withdrawal of this rejection is respectfully requested.

Rejections Under 35 U.S.C. §103

Claims 5, 7, 8, 13 and 18 have been rejected under 35 U.S.C. §103(a) as being unpatentable over *Laskaris* in view of Japanese Patent Publication No. JP 04331955 A to *Kurokawa* (hereinafter “*Kurokawa*”).

As explained above, in connection with the rejection under 35 U.S.C. §102(b), *Laskaris* does not disclose a pulse-driven metering pump. Neither does *Kurokawa*, and moreover, the combination does not teach a pulse-driven metering pump, whether used in this Applicant’s claimed configuration or otherwise.

Laskaris only discloses and teaches a gear pump, driven by direct means, not pulsed means. *Kurokawa* discloses and teaches a vibrating diaphragm type of pump combined with a gear meter. The vibrating diaphragm of *Kurokawa* is not pulse driven, but rather is driven by a constant, alternating signal whose amplitude is varied to vary the output volume of the pump. (See *Kurokawa*, English translation of Abstract provided by Examiner, for example.)

Because the combination of *Laskaris* and *Kurokawa* does not render the invention of any of the independent claims obvious, the claims rejected hereunder which depend therefrom are also not obvious.

Accordingly, withdrawal of this rejection is respectfully requested.

Declaration Submitted

Applicant has filed herewith an Information Disclosure Statement and a Declaration of Ralph Morrison. In view of the Declaration and the accompanying Exhibit thereto, the claims

are thought to be patentable over the art newly introduced in the Information Disclosure Statement.

CONCLUSION

In view of the foregoing amendments and remarks, reconsideration is respectfully requested. This application should now be in condition for allowance; a notice to this effect is respectfully requested. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is requested to call the Applicant's attorney at the telephone number listed below.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 50/2762.

Respectfully submitted,
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